CYT-100MG

User Manual

CYT-100MG

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CYT-100MG

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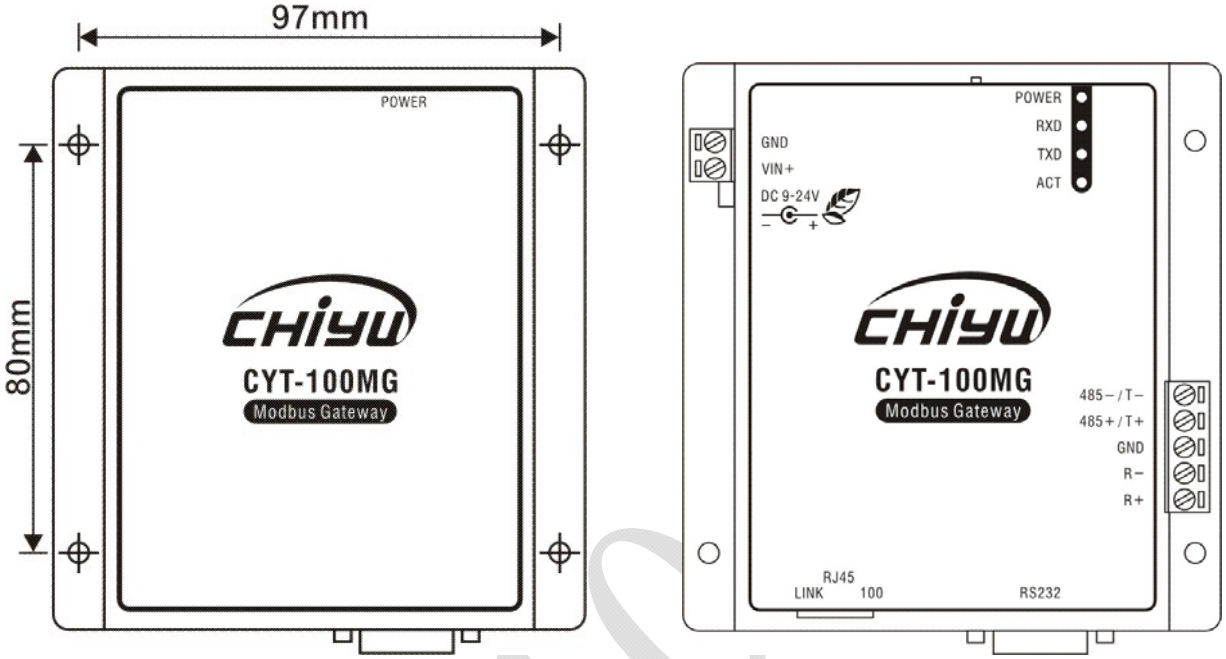
—CYT-100MG—

Ⅰ、Hardware Introduction

◆ Appearance

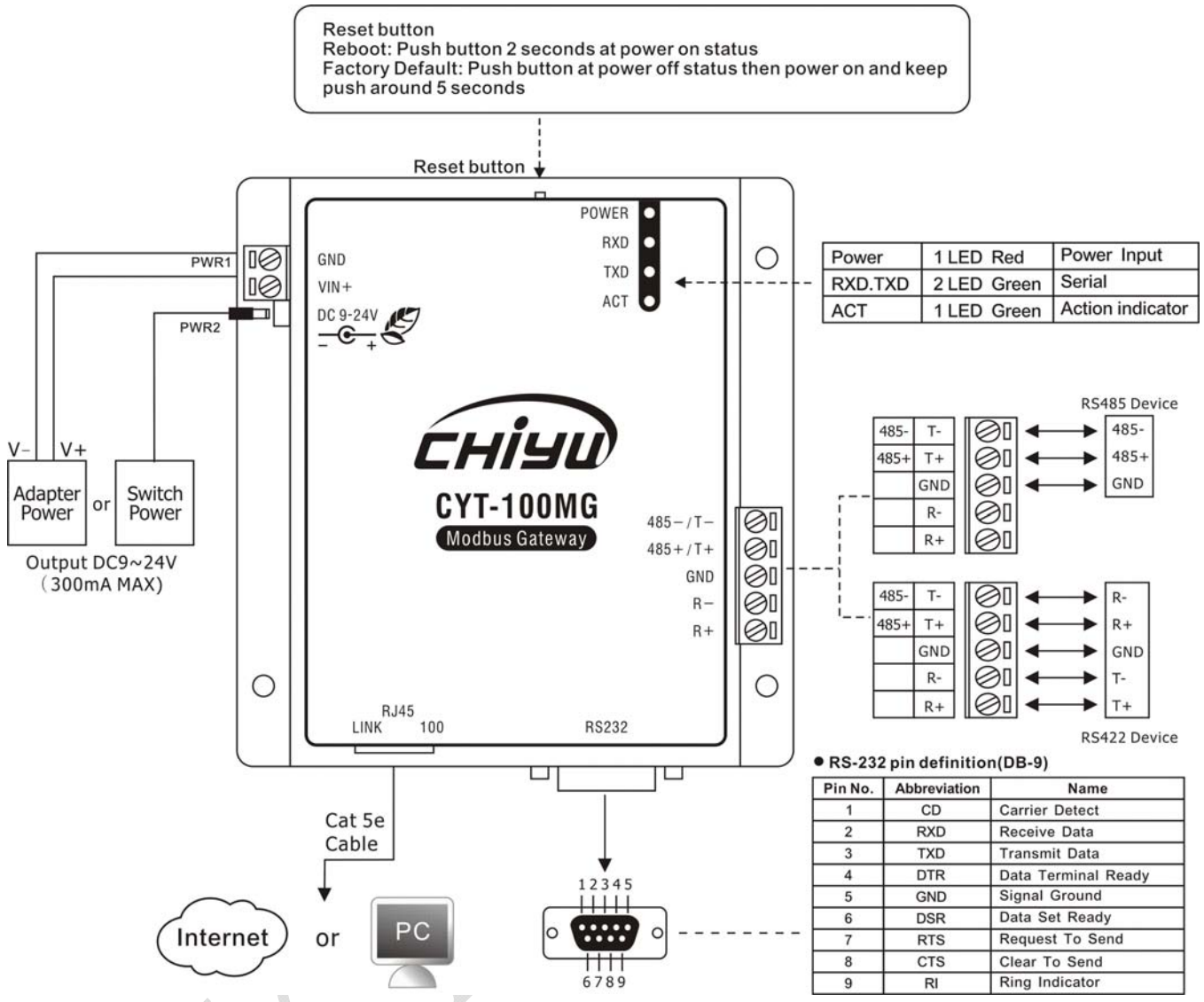


◆ Specification

Item	Specification
CPU	16 Bits, 100MHZ
Memory	256KB Flash & 2MB SDRAM
Watchdog	System never halt
Ethernet	10/100 Base-T/Tx , Automatic MSI/MDI-x port
Communication Port	RS-232, RS-422, RS-485
Connectors	DB9(MALE)/RJ-45
RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD,RI,GND
RS-422	Tx+,Tx-, Rx+, Rx-,GND (1200M for the longest distance)
RS-485	Data+, Data-,GND (1200M for the longest distance)
Power Input	Choose one： PWR1: DC9~24V(300MA MAX) 2-pin Separate terminal PWR2: DC9~24V(300MA MAX) DC power to DC socket
Operating Temperature	0℃ ~ 55℃
Operating Humidity	5 ~ 95%RH
Storage Temperature	-20℃ ~ 85℃
Surge Protection	Serial port 15KV ESD
Electromagnetic protection	Ethernet port 1.5KV
LED Indicator	Power / RXD / TXD / ACT
Weight	315g
Dimensions (L x W x H)	106.5(86.5 without ear loop)*115(110 without RS232)*28mm

CYT

◆ End point



● **RS-232 pin definition(DB-9)**

Pin No.	Abbreviation	Name
1	CD	Carrier Detect
2	RXD	Receive Data
3	TXD	Transmit Data
4	DTR	Data Terminal Ready
5	GND	Signal Ground
6	DSR	Data Set Ready
7	RTS	Request To Send
8	CTS	Clear To Send
9	RI	Ring Indicator

Ⅱ、Product Overview

CYT-100MG apply for industrial control device, and it make TCP Modbus 及 RTU/ASCII Modbus devices can access and communicate data through CYT-100MG.

CYT-100MG can support 4 TCP Master and each Master can control maximum 32 demands.

The Web interface of CYT-100MG is simple, easily to operate, and without operation system limitation.

◆ Features

- Support DHCP Client, when activate this function, CYT-100MG can get TCP/IP default from DHCP Server when the system activates, Includes IP address, default getaway IP and DNS server.
- Support RTU Master/Slave and ASCII Master/Slave 4 modes setting.
- Auto detecting 10/100 M Ethernet.
- Enable users to conduct data access or management on CYT-100MG through various operation system of IE , Netscape browser.
- Allows users to back up and store file system parameter and restore it, for security reasons the backup file will be stored encrypted.
- Support 4 sets of remote IP connections at the same time

CYT-100MG

Ⅲ、WEB Login

CYT-100MG contains a HTTP server, thus CYT-100MG can link and connect through Web browser, and then conduct setting.

◆ Preparation

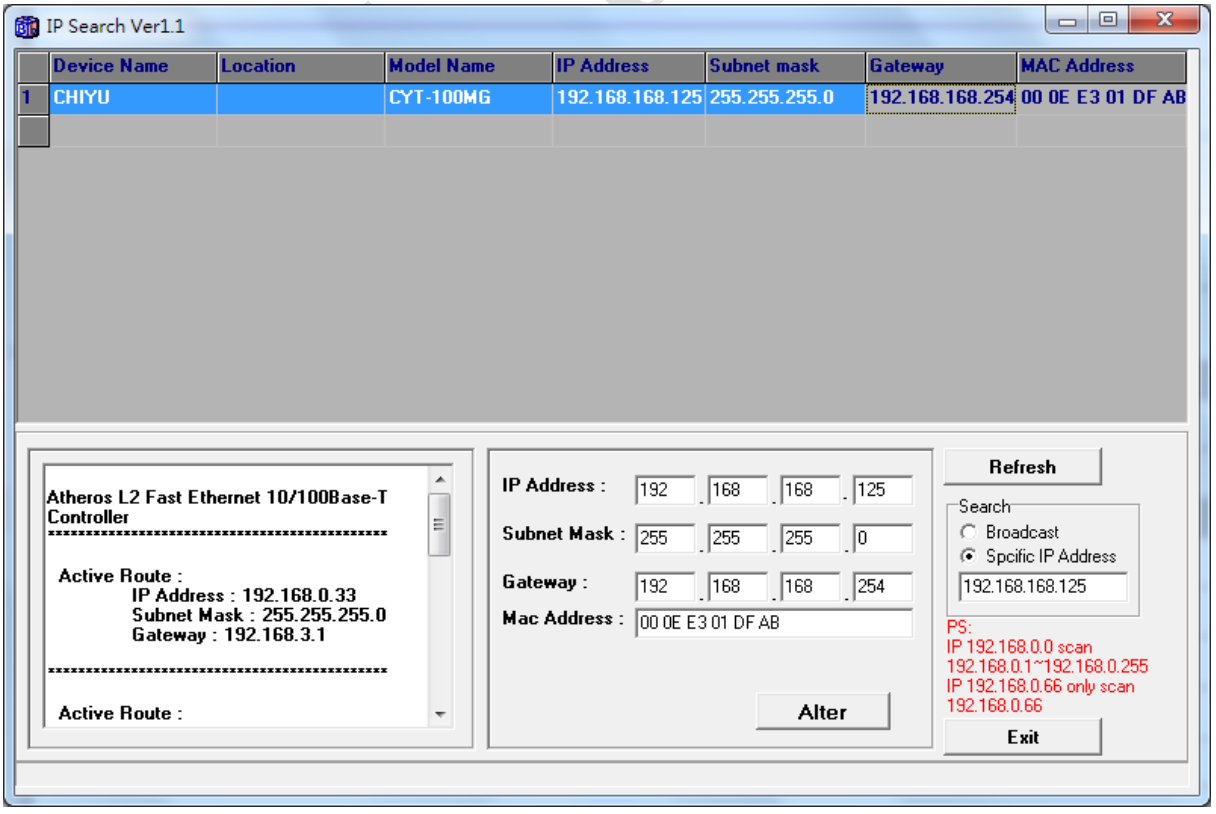
Before conducting CYT-100MG setting, please assure the following:

- PC has connected to CYT-100MG, and PC and CYT-100MG are situated in the same WAN with power supplied.
- If the default IP address (192.168.168.125) is occupied by else device, then it is a must to shut down that device first till the setting is over, and then allocate new IP address to CYT-100MG.

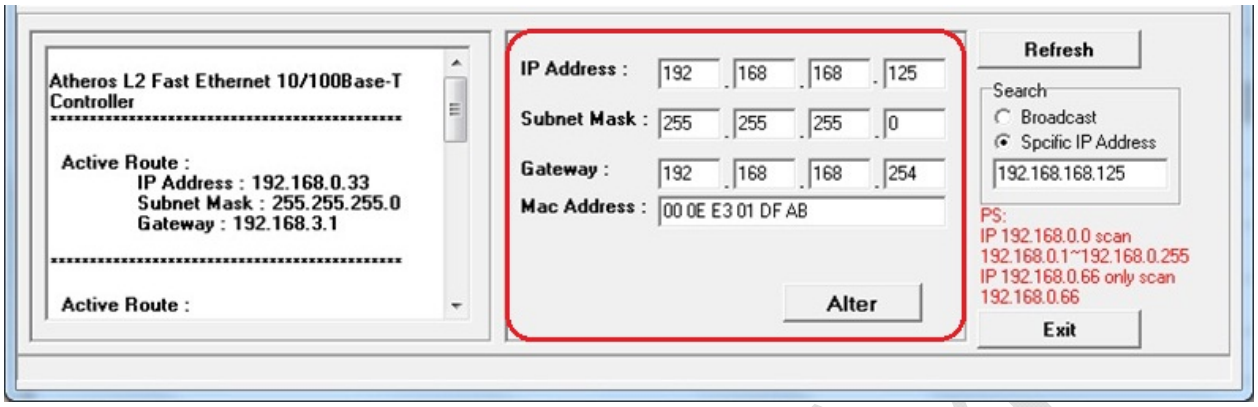
◆ How to search CYT-100MG

1、After installation of CYT-100MG and network cable is completed, use CYT-100MG's IP Search to search all CYT-100MG in a certain LAN, or download IP Search tool from CHIYU homepage. Desktop icon as below:

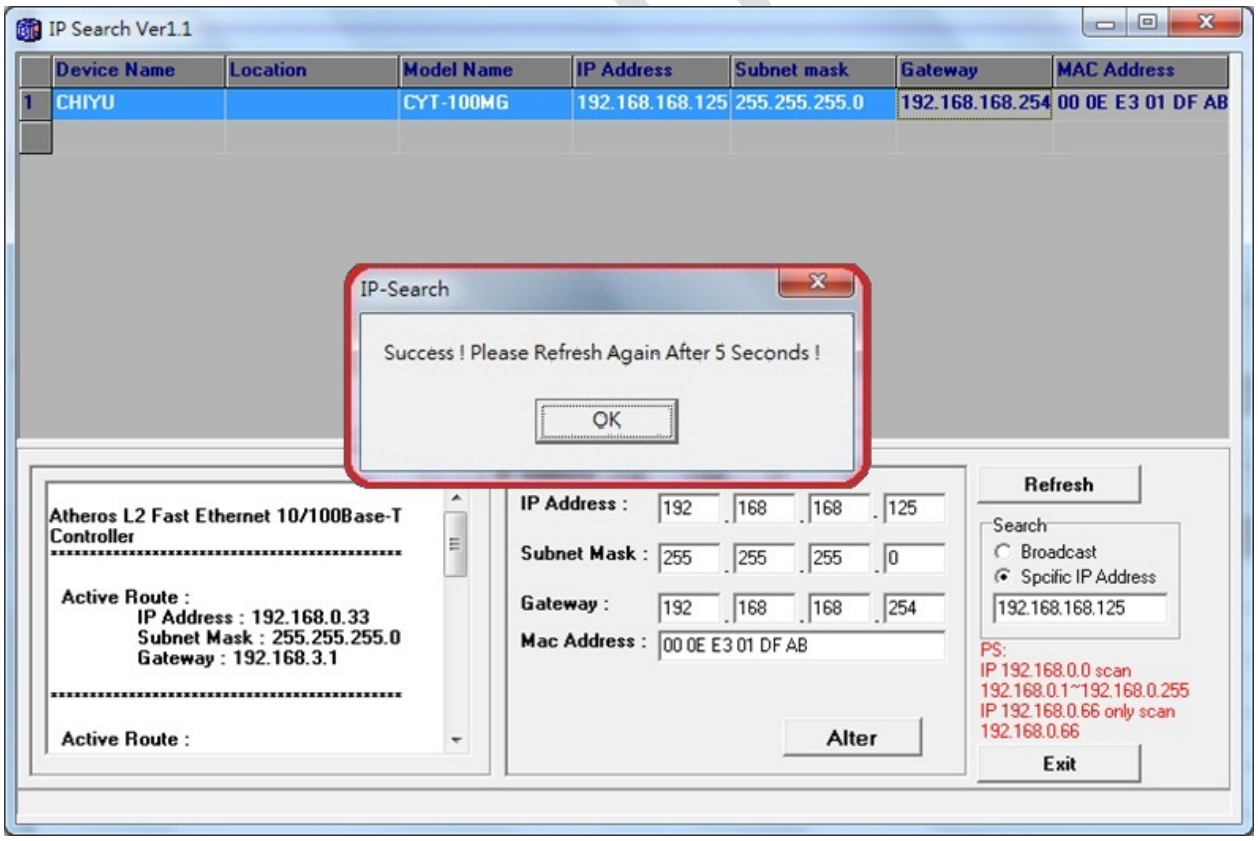
2、Click IP Search icon, will display a window, as shown:



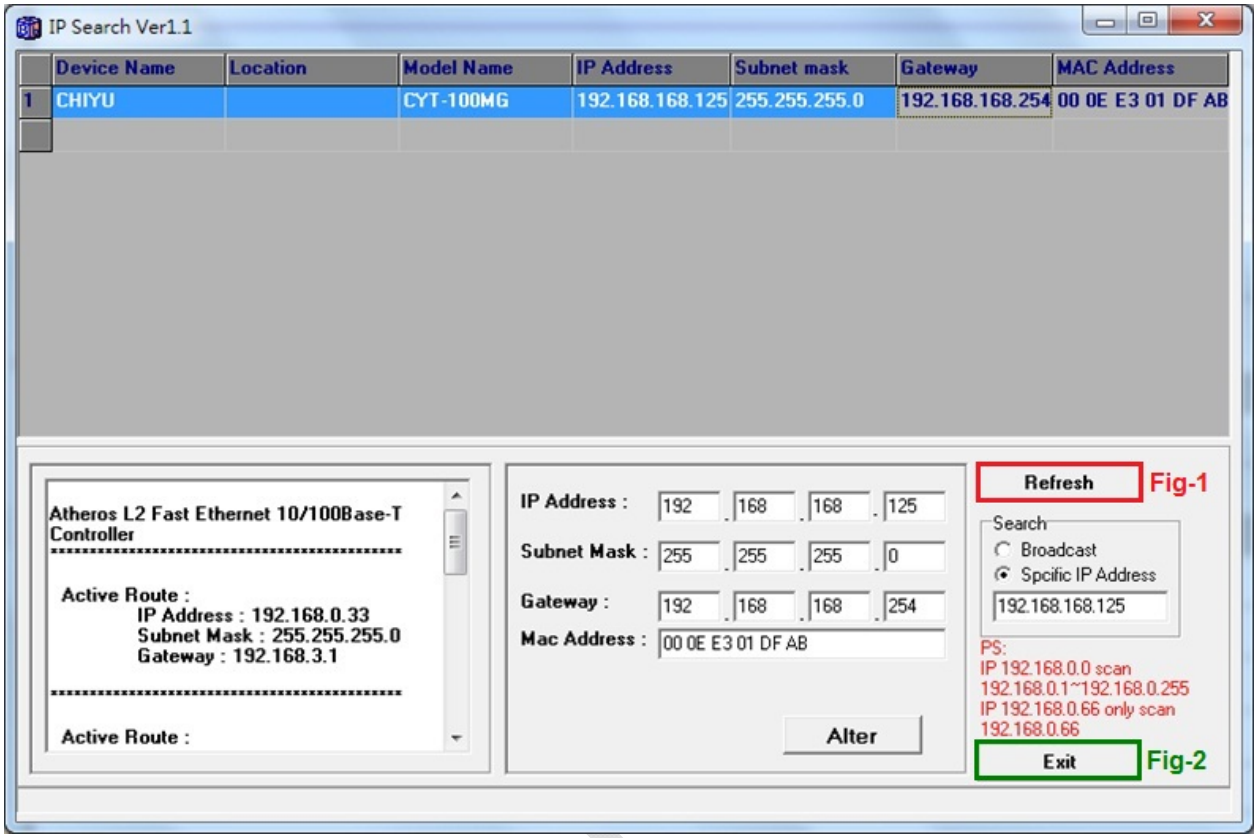
3、While the IP Search window shows up, it will display all CYT-100MG in LAN, and show its Device name, Location, Model Name, IP Address, Subnet Mark, Gateway, Mac Address. Select particular CYT-100MG, then its related information will appear below the window, as shown:



4、The showed information of CYT-100MG can be revised directly in the window, the part can be modified: IP Address, Subnet Mask, Gateway. After modification completed (MAC Address can not modify),click **Alter** then it will display the modified information, as shown:



5、After modification, if want to confirm whether the modification is correct or not, click Refresh button to refresh and check information (Fig-1), click Exit button to leave.(Fig-2)



6、After modification, the IP address of CYT-100MG has matched with its WAN, if want to get access into the Web of CYT-100MG, has two methods:

(1)Open IP Search, select and double click particular CTY-100MG, then to enter its webpage.

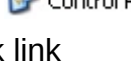
(2)While the internet explorer opened, input CYT-100MG IP address to enter its webpage

Remark：

WINDOWS XP：

《Step 1》

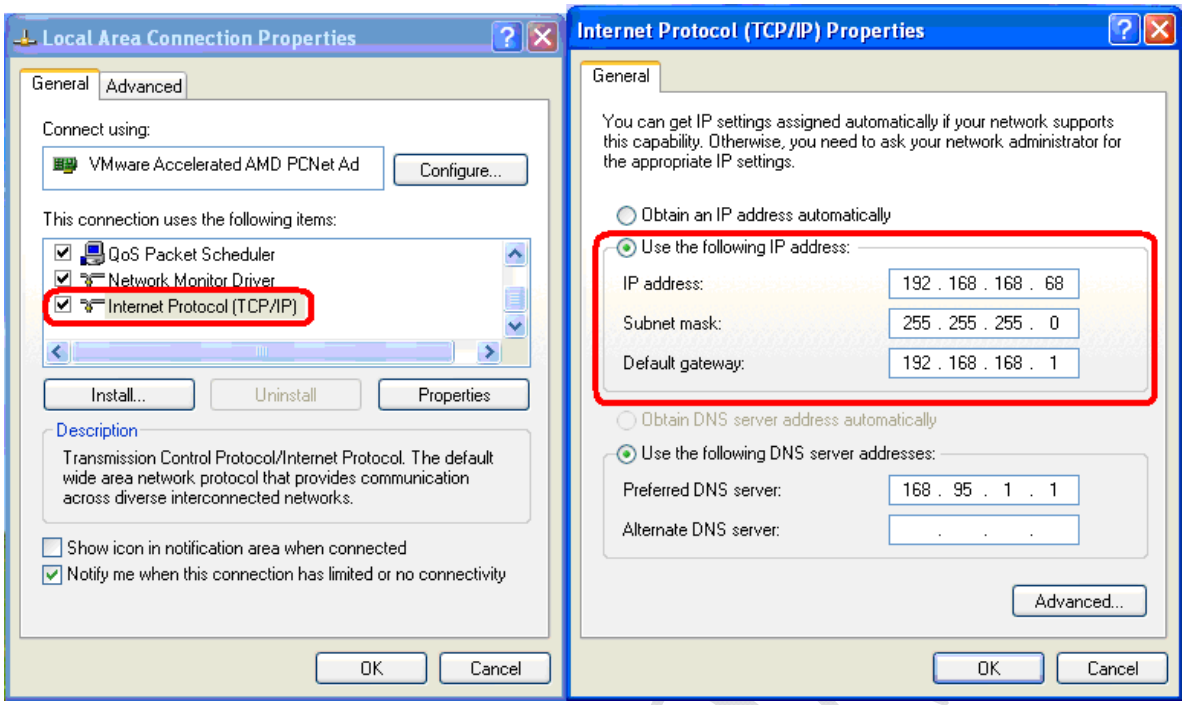
Click WINDOWS XP my computer

, Open Control Pan 

on the left side, please turn to traditional overview and select network link

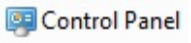
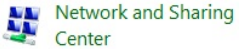
《Step 2》

Click LAN, then select content, the link configuration will be shown, click Internet Protocol (TCP/IP), then input the same setting as CYT-100MG, as below figure:


Local Area Connection Properties
General
Advanced
Connect using:
VMware Accelerated AMD PCNet Ad
Configure...
This connection uses the following items:
QoS Packet Scheduler
Network Monitor Driver
Internet Protocol (TCP/IP)
Install...
Uninstall
Properties
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
Show icon in notification area when connected
Notify me when this connection has limited or no connectivity
OK
Cancel
Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 192 . 168 . 168 . 68
Subnet mask: 255 . 255 . 255 . 0
Default gateway: 192 . 168 . 168 . 1
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server: 168 . 95 . 1 . 1
Alternate DNS server:
Advanced...
OK
Cancel

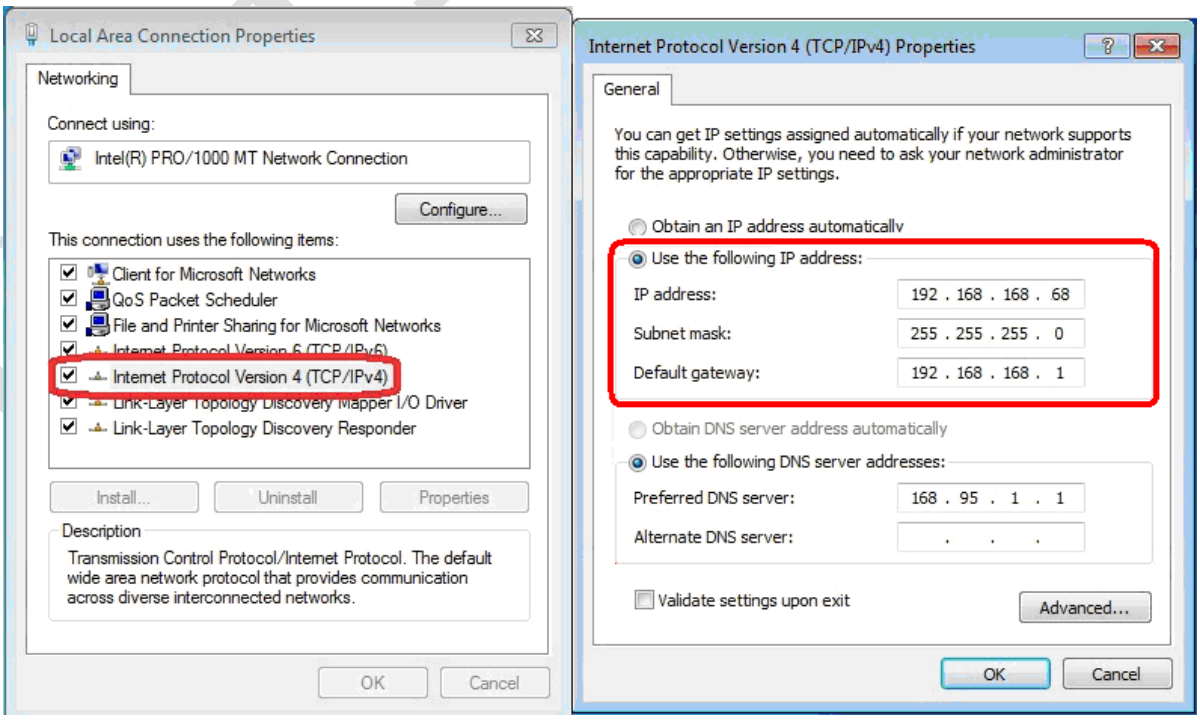
WINDOWS 7：

《Step 1》

Click Windows 7 icon, select  , open and search for ,  click Alter Interface Card on the upper-left side.

《Step 2》

Click LAN link, select content, then the LAN settings will be shown, click Internet Protocol(TCP/IPv4),then input same setting as CYT-100MG, as below figure.


Local Area Connection Properties
Networking
Connect using:
Intel(R) PRO/1000 MT Network Connection
Configure...
This connection uses the following items:
Client for Microsoft Networks
QoS Packet Scheduler
File and Printer Sharing for Microsoft Networks
Internet Protocol Version 4 (TCP/IPv4)
Link-Layer Topology Discovery Responder
Install...
Uninstall
Properties
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
OK
Cancel
Internet Protocol Version 4 (TCP/IPv4) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 192 . 168 . 168 . 68
Subnet mask: 255 . 255 . 255 . 0
Default gateway: 192 . 168 . 168 . 1
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server: 168 . 95 . 1 . 1
Alternate DNS server:
Validate settings upon exit
Advanced...
OK
Cancel

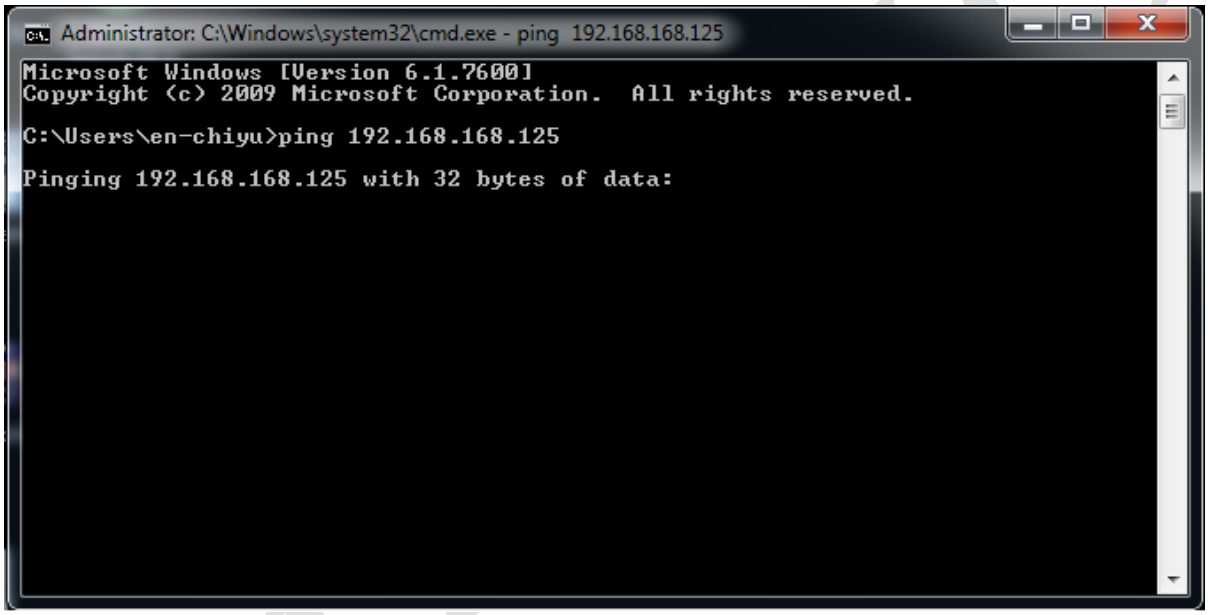
◆ How to login to CYT-100MG Web via web browser

1、Start Web browser (ig: WIN 7 IE), input CYT-100MG's IP Address, for example: use the default CYT-100MG IP Address: http://192.168.168.125

2、If connection failed, should check:

- If CYT-100MG installed and its power supplied properly

- To examine the LAN connection, can use start tools→Execute→Input cmd open MS-DOS, Input " ping" to test CYT-100MG connection, input command: ping 192.168.168.125, as shown below:


Administrator: C:\Windows\system32\cmd.exe - ping 192.168.168.125
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.
C:\Users\en-chiyu>ping 192.168.168.125
Pinging 192.168.168.125 with 32 bytes of data:

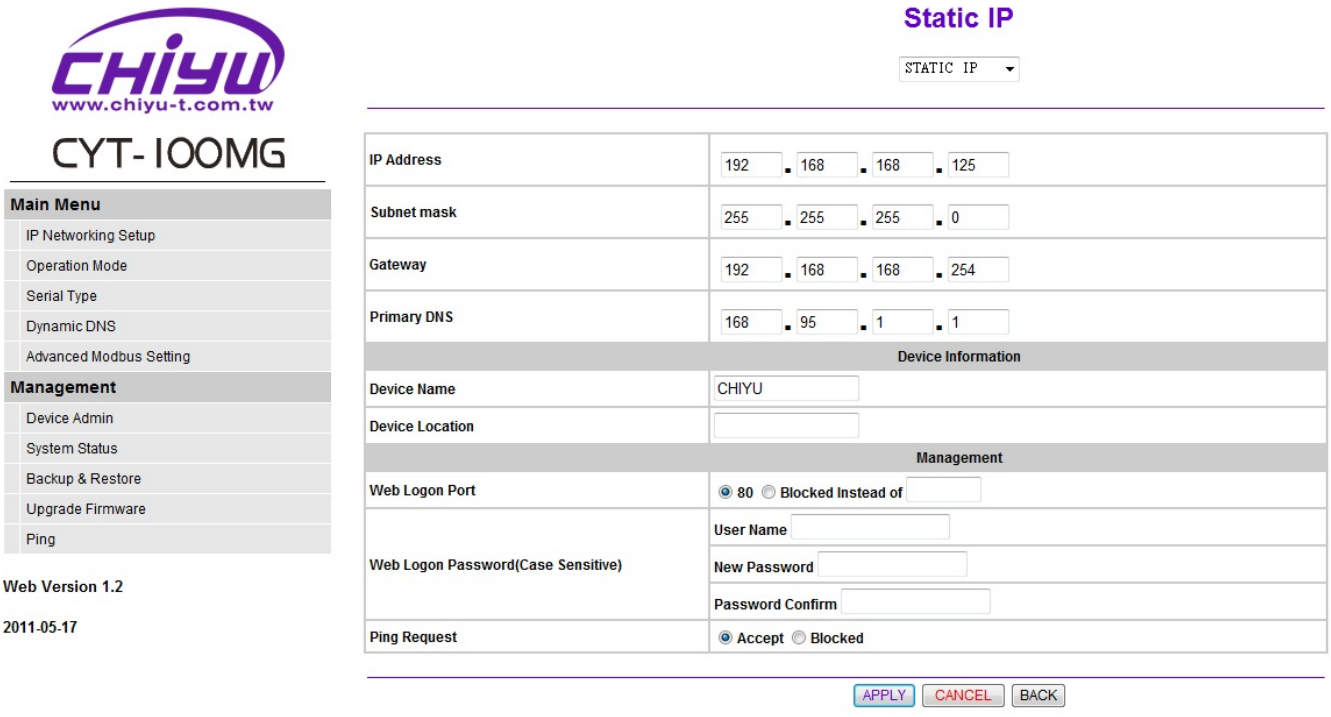
- If no response received, it explains the link has troubles either the connection is not proper or the PC's IP address can not match with CYT-100MG's IP address

- Set the PC's IP address with CYT-100MG's IP address with same segment, if the PC uses fixed IP address, the address must be ranged in: 192.168.168.1 ~ 192.168.168.65 or 192.168.168.67 ~ 192.168.168.254 , thus it can be compatible with CYT-100MG's default IP address: 192.168.168.125, the **Subnet Mask**'s setting must be: 255.255.255.0 , please refer to page 6 ~ 7

3、If the connection with CYT-100MG is successful, then it will display a message window for User name and Password, the default for user name and Password is: admin/admin, as shown below:

Windows Security
The server 192.168.3.158 at requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
User name
Password
Remember my credentials
OK
Cancel

4、While the user name and password entered, a Web setting interface of CTY-100MG will be showed, enter it will then display a " IP Networking Setup " page.

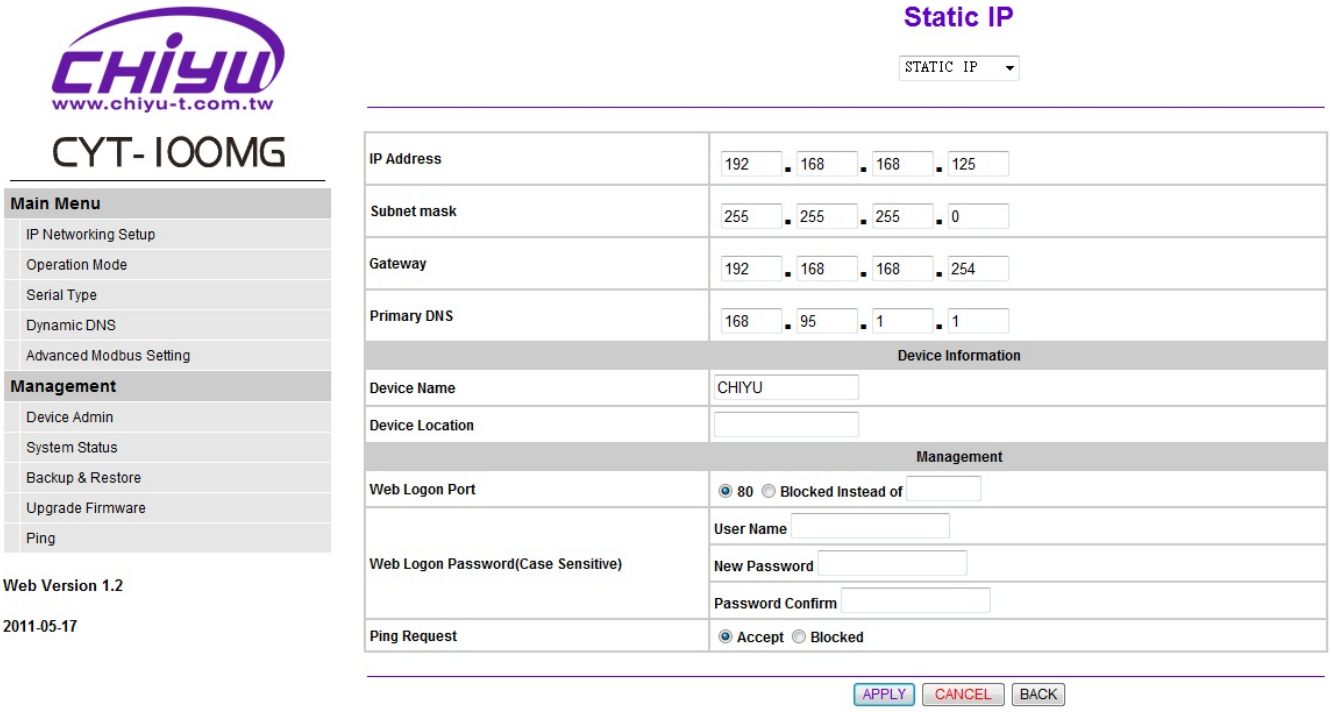


Ⅳ、Web Function Instruction

◆ Main Menu

1、IP Networking setup

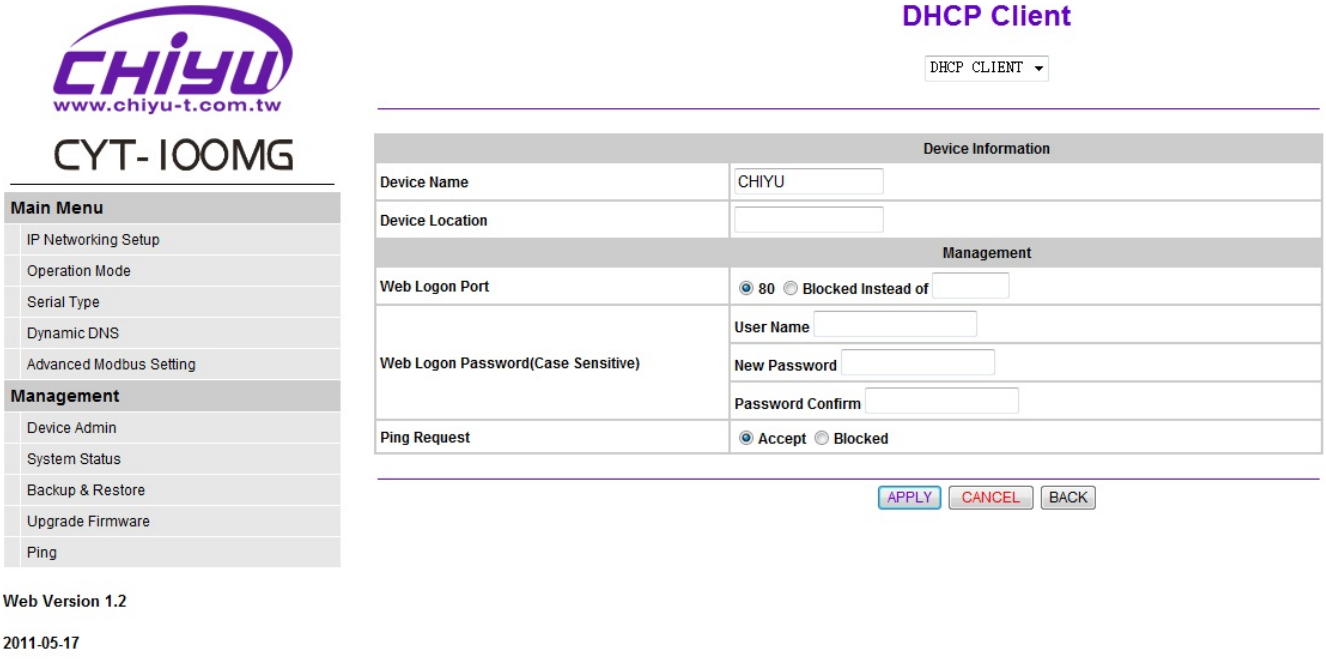
(1) STATIC IP



- **Function instruction**

Function	Description
IP Address	Set the IP address of the CYT-100MG，default setting is **192.168.168.125**
Subnet mask	Set the subnet mask of the CYT-100MG，default setting is **255.255.255.0**
Gateway	Set the gateway of the CYT-100MG，default setting is **192.168.168.254**
Primary DNS	Set the DNS of the CYT-100MG，default setting is **168.95.1.1**
Device Information	
Device Name	Fill in the device name, default setting is **CHIYU**
Device Location	Fill in the device location , default setting is blank
Management	
Web Logon Port	● Select if using standard Http pot , default is **80** ● If other port sequence has to be set, select **Blocked Instead of**, and then fill in the port sequence.
Web Logon Password (Case Sensitive)	● User Name：Fill In the user name ● Password Change：Change the password, for security reasons, please fill in a new password to replace the default management ● Password Confirm：Confirm the new password
Ping Request	Select accept or blocked ping request , default is **accept**

(2) DHCP Client



- **Function instruction**

Function	Description
Device Name	Fill in the device name, default setting is **CHIYU**
Device Information	Fill in the device location , default setting is blank
Management	
Web Logon Port	● Select if using standard Http pot , default is **80** ● If other port sequence has to be set, select **Blocked Instead of**, and then fill in the port sequence.
Web Logon Password (Case Sensitive)	● User Name：Fill In the user name ● Password Change：Change the password, for security reasons, please fill in a new password to replace the default management ● Password Confirm：Confirm the new password
Ping Request	Select accept or blocked ping request , default is **accept**

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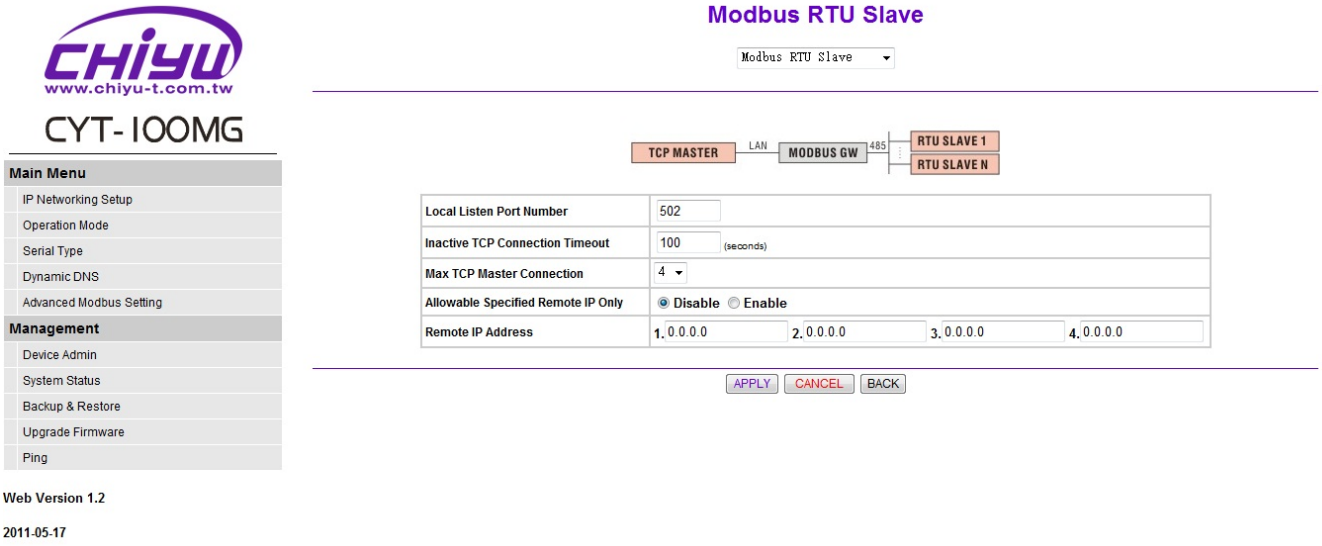
2、Operation Mode

(1) Modbus RTU Slave



- **Function instruction**

Function	Description
Local Listen Port Number	Fill in the local listen port number , the same as TCP Master port, default setting is **502**
Inactive TCP Connection Timeout	After TCP connection set up, if there is no reflection from Server, the default setting of disable time will be set to 100 seconds.
Max TCP Master Connection	Set the max TCP Master connection，the range is 1 ~ 4 , default setting is **4**
Allowable Specified Remote IP Only	Select disable or enable allowable specified remote IP only, default setting is **disable**
Remote IP Address	Set the remote IP address，up to 4 sets , default setting is **0.0.0.0**

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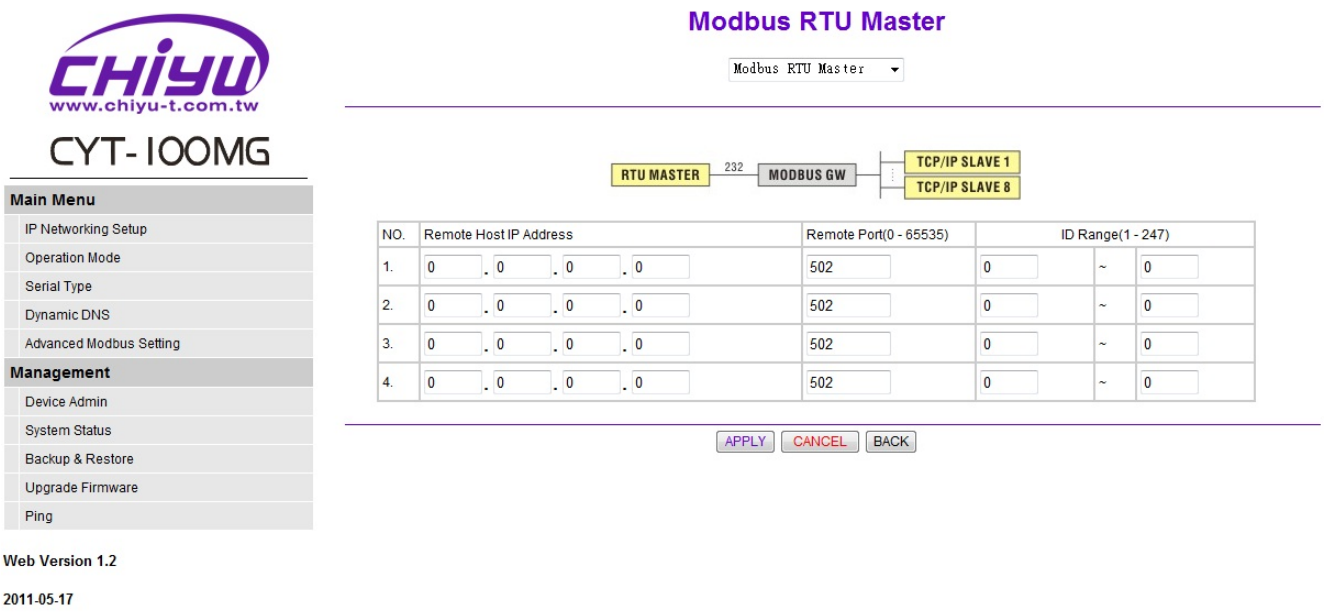
(2) Modbus RTU Master



- **Function instruction**

Function	Description
Remote Host IP Address	Set the remote host IP address，up to 4 sets , default setting is **0.0.0.0**
Remote Port(0 - 65535)	Set the remote port，the range is 0~65535，default setting is **502**
ID Range(1~247)	Set the ID range，the range is 1~247，default setting is **0**

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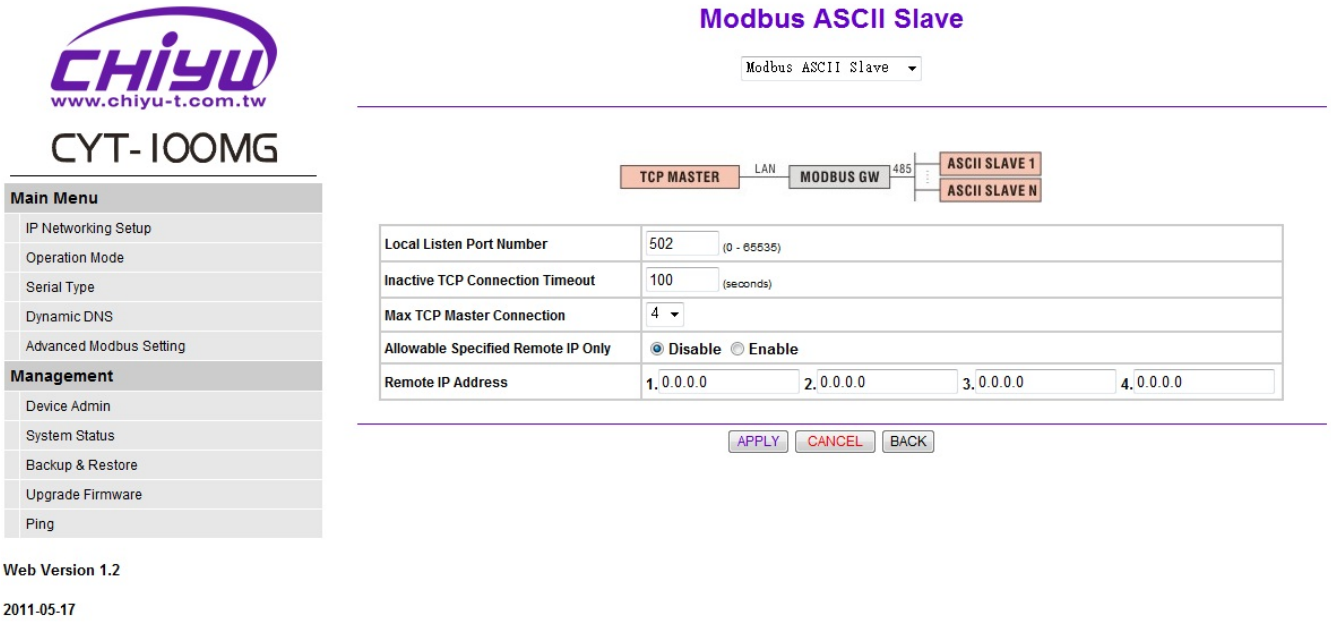
(3) Modbus ASCII Slave



- **Function instruction**

Function	Description
Local Listen Port Number	Fill in the local listen port number , the same as TCP Master port, default setting is **502**
Inactive TCP Connection Timeout	After TCP connection set up, if there is no reflection from Server, the default setting of disable time will be set to 100 seconds.
Max TCP Master Connection	Set the max TCP Master connection，the range is 1 ~ 4 , default setting is **4**
Allowable Specified Remote IP Only	Select disable or enable allowable specified remote IP only, default setting is **disable**
Remote IP Address	Set the remote IP address，up to 4 sets , default setting is **0.0.0.0**

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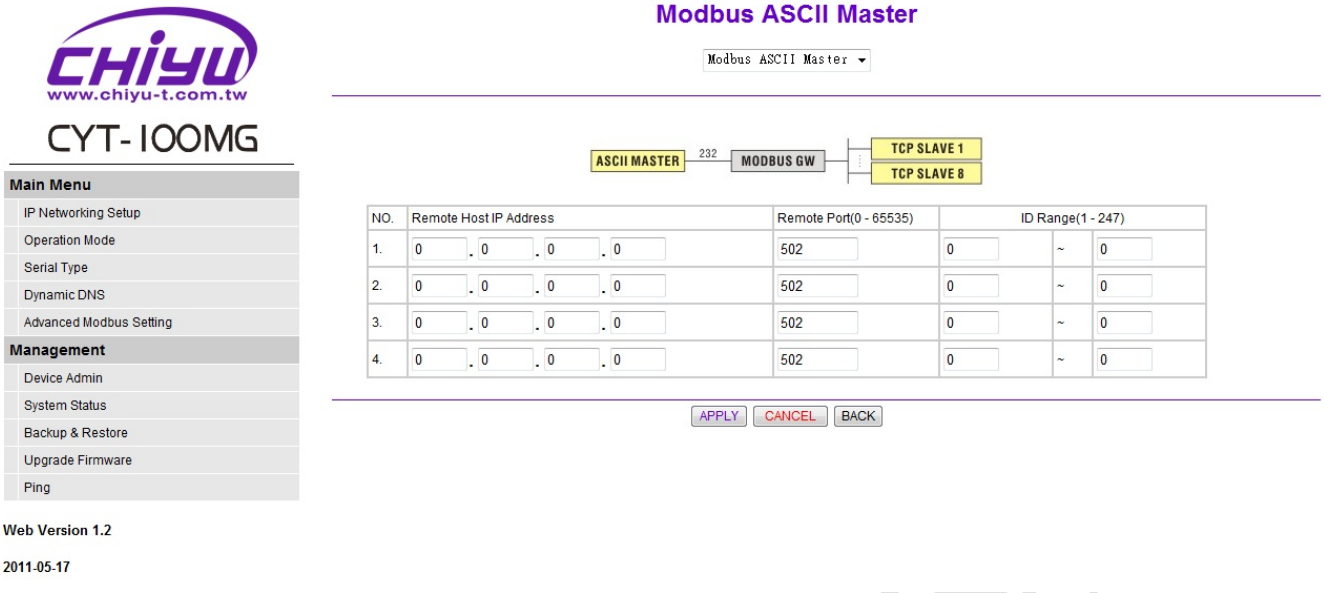
(4) Modbus ASCII Master

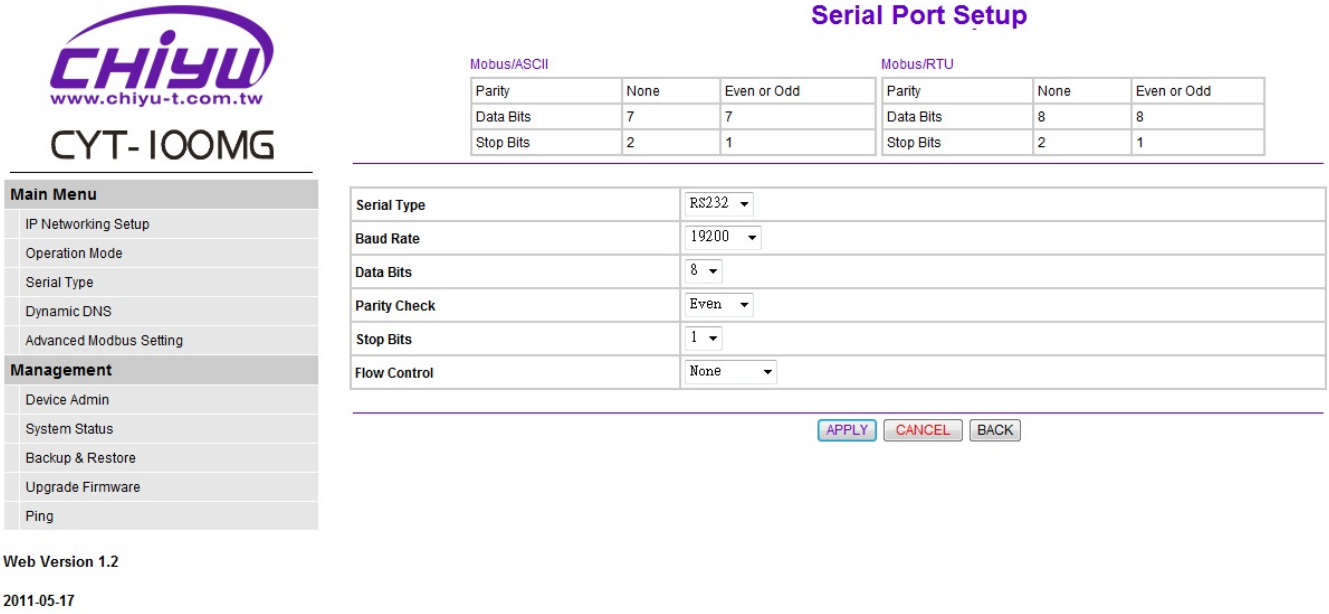


- **Function instruction**

Function	Description
Remote Host IP Address	Set the remote host IP address，up to 4 sets , default setting is **0.0.0.0**
Remote Port(0 - 65535)	Set the remote port，the range is 0~65535，default setting is **502**
ID Range(1~247)	Set the ID range，the range is 1~247，default setting is **0**

CYT-100MG

3、Serial Type



- **Function instruction**

Function	Description
Serial Type	Set the serial type，there are RS232/485/422 for setting，default setting is **RS232**
Baud Rate	1.Set serial port baud rate, the parameters can be selected：**1200、2400、4800、9600、19200、38400、57600、115200、230400** 2.Default setting is **19200**
Data Bits	Set the data bits， 5,6,7,8 parameters can be selected, default setting is 8
Parity Check	● Set the parity check，4 parameters can be selected： 1.odd 2.Even 3.Mark 4.Space ● Default setting is **Even**
Stop Bits	Set the stop bits， 1,2 parameters can be selected, default setting is **1**
Flow Control	Set the flow control，2 parameters can be selected： ● Xon/Xoff：Software flow control ● CTS/RTS：Hardware flow control ● Default setting is **None**

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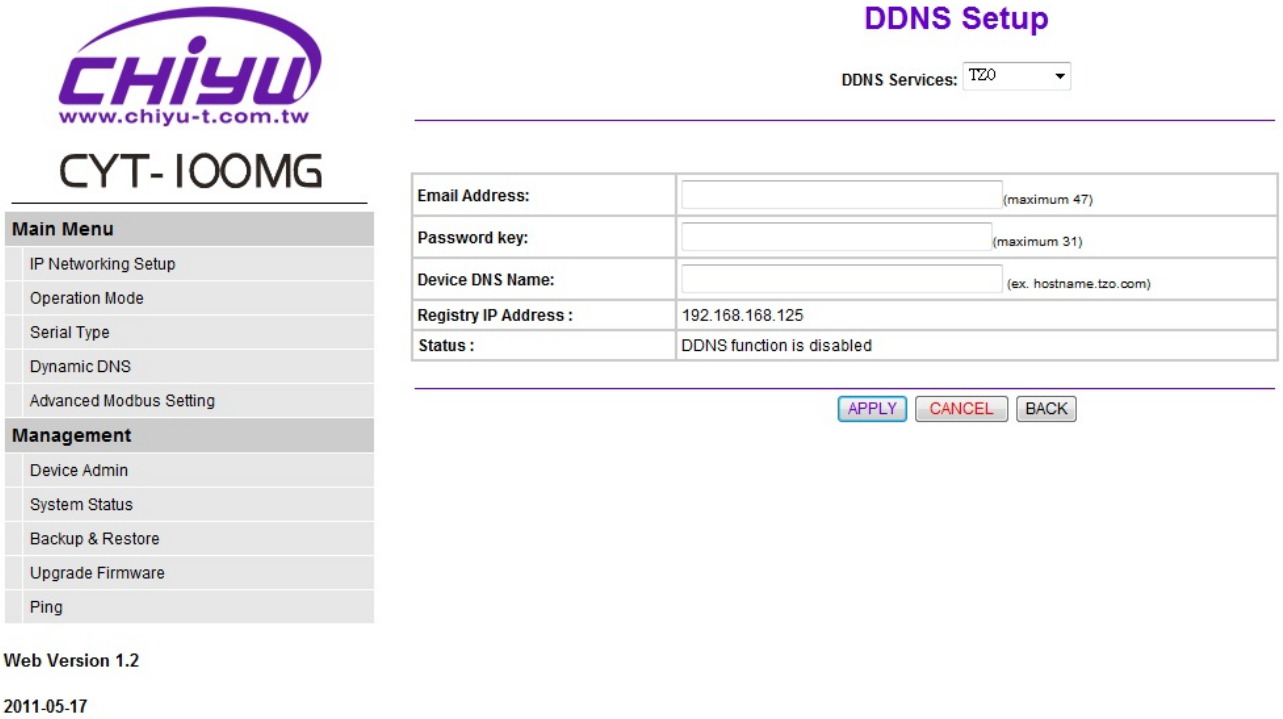
4、DDNS Setup

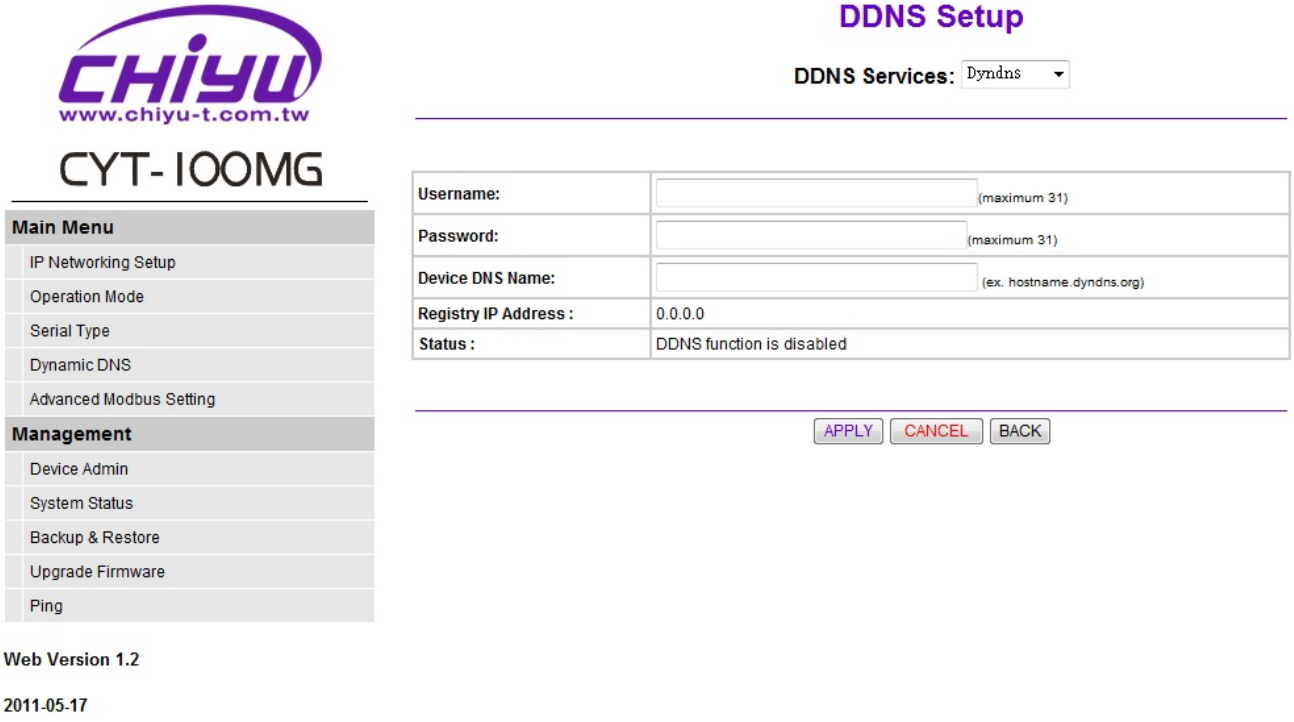
(1) TZ0



- **Function instruction**

Function	Description
E-mail Address	Fill in the E-mail address for DDNS , up to 47 characters
Password key	Fill in the password key for DDNS，up to 31 characters
Device DNS Name	Fill in the device DNS name，for example：hostname.tzo.com
Registry IP Address	Display the registry IP address，when DDNS is enabled, It will show the registry IP address
Status	Display DNS Serve status，when DDNS server does not enable ,it will show “**DDNS function is disabled**”

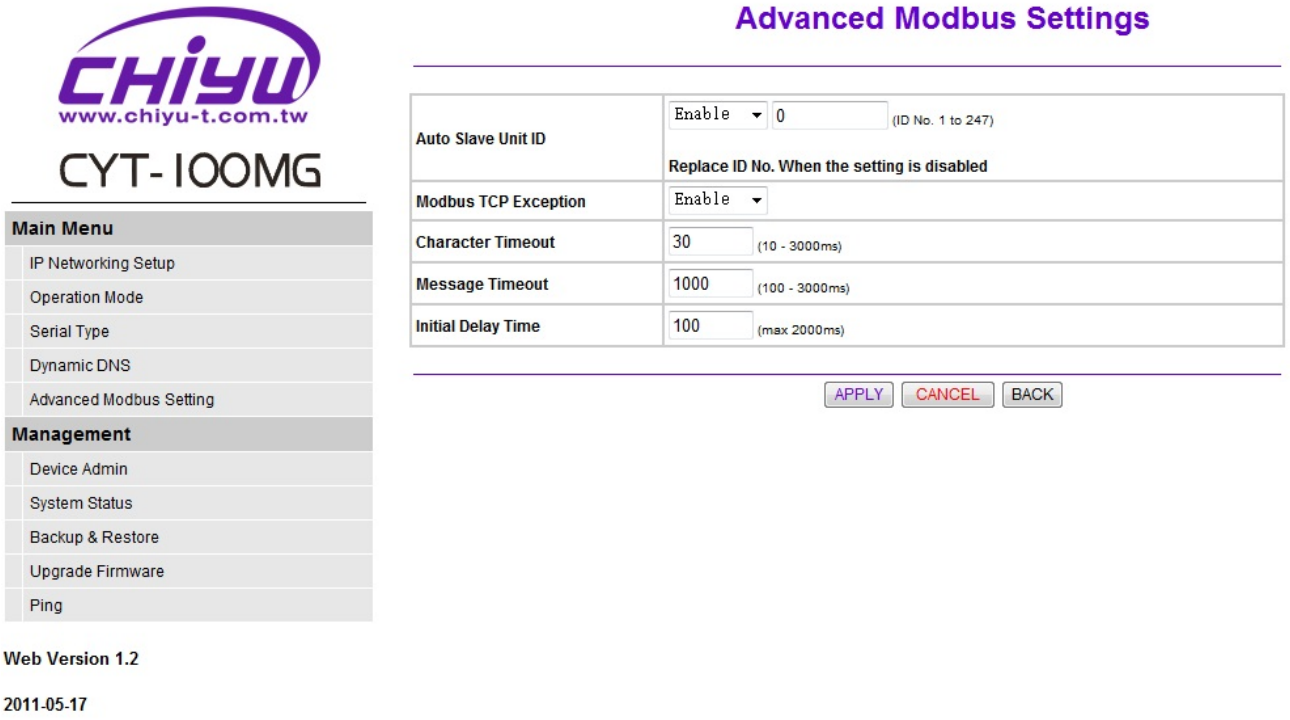
(2) Dyndns



- **Function instruction**

Function	Description
Username	Fill in the username for DDNS，up to 31 characters
Password	Fill in the password for DDNS，up to 31 characters
Device DNS Name	Fill in the device DNS name，for example：hostname.dyndns.org
Registry IP Address	Display the registry IP address，when DDNS is enabled, It will show the registry IP address, default setting is 0.0.0.0
Status	Display DNS Serve status，when DDNS server does not enable ,it will show “DDNS function is disabled”

5、Advanced Modbus Setting



- **Function instruction**

Function	Description
Auto Slave Unit ID	● Auto slave unit ID set to enable or disable function, default setting is enable ● When disable the function, need to manual insert ID, can set from 1~247.
Modbus TCP Exception	If TCP connection error, it will react, the default setting is enable
Character Timeout	Serial data time interval setting, and default setting is **30ms**
Message Timeout	Can set the enable time of TCP connection if it’ s enabled. The default setting is **1000ms**
Initial Delay Time	Message Timeout delay time setting and default setting is **100ms. If m**essage Timeout is1000ms,initial Delay Time setting is100ms, then TCP 1100ms connection will be disabled when there is no reaction.

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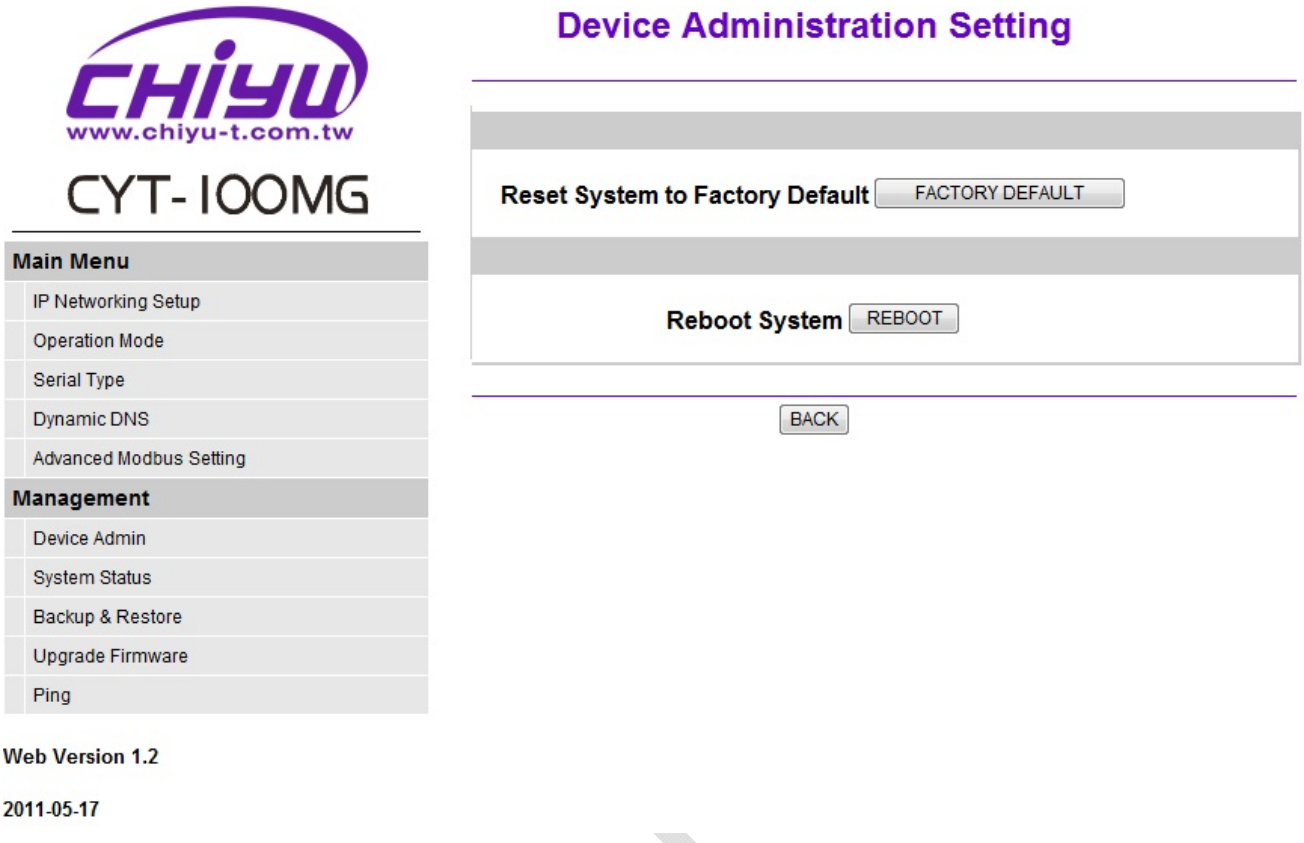
◆ Management

1、Device Admin



- **Function instruction**

Function	Description
Reset System to Factory Default	Execute this function will reset system to factory default
Reboot System	Execute this function will reboot system

2、System Status

Main Menu

- IP Networking Setup
- Operation Mode
- Serial Type
- Dynamic DNS
- Advanced Modbus Setting

Management

- Device Admin
- System Status
- Backup & Restore
- Upgrade Firmware
- Ping

Web Version 1.2

2011-05-17

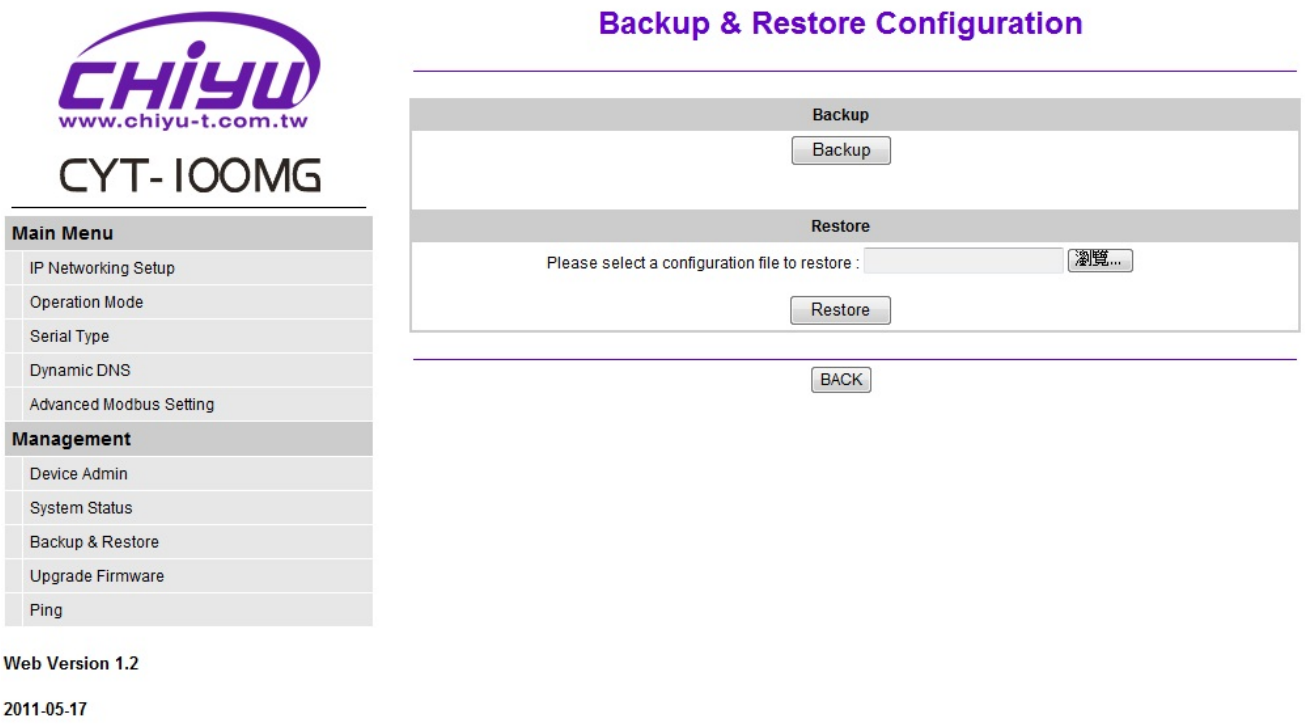
System Status Monitor

System Status		
Product Name:	CYT-100MG	
Firmware Version:	1.04.00,May 17 2011	
System Up Time:	1H:31M:37S	
Ethernet Status		
IP Configuration Mode:	STATIC IP	
Operation Mode :	RTU Slave	
Connection Port:	502	
MAC Address:	00:0e:e3:01:df:ab	
IP Address:	192.168.168.125	
Subnet mask:	255.255.255.0	
Default Gateway:	192.168.168.254	
Primary DNS:	168.95.1.1	
STATUS:	Up	
Serial Status		
Serial Type:	RS232/422/485	
Baud Rate:	19200	
Data Bits:	8	
Parity Check:	even	
Stop Bits:	1	
Flow Control:	None	
Statistic		
Ethernet :	TX Bytes:	50720 bytes
	TX Packets:	90 packets
	RX Bytes:	6235463 bytes
	RX Packets:	61604 packets
Serial:	TX Bytes:	0 bytes
	RX Bytes:	0 bytes

- **Function instruction**

Function	Description
Product Name	Display the product name：**CYT-100MG**
Firmware Version	Display the firmware version：**1.04.00,May 17 2011**
System Up Time	Display system up time，the sequence is day/hour/minute/second
Ethernet Status	
IP Configuration Mode	Display the IP configuration，default setting is **STATIC IP**
Operation Mode	Display the operation mode，default setting is **RTU Slave**
Connection Port	Display the connection port，default setting is **502**
MAC Address	Display the MAC address of CYT-100MG
IP Address	Display CYT-100MG address, default setting is**192.168.168.125**
Subnet mask	Display CYT-100MG Subnet mask, default setting is **255.255.255.0**
Default Gateway	Display CYT-100MG Default Gateway, default setting is **192.168.168.254**
Primary DNS	Display CYT-100MG Primary DNS address, default setting is**168.95.1.1**
STATUS	Display CYT-100MG internet status
Serial Status	
Serial Type	Display the serial type
Baud Rate	Display Baud Rate, default setting is **19200**
Data Bits	Display Data Bits, default setting is **8**
Parity Check	Display Parity Check, default setting is **Even**
Stop Bits	Display Stop Bits, default setting is **1**
Flow Control	Display Flow Control, default setting is **None**
Statistic	
Ethernet	There are RX/TX Bytes ,RX/TX Packets 4 columns to display the data receive and transmit from server.
Serial	RX & TX display the total data amount of data receive and transmission of Serials.

3、Backup & Restore



- **Function instruction**

Function	Description
Backup	After execution, can save the present system settings as a backup file, and save it in hardware, the sub-name of the saved file is .cfg
Restore	Browse and select saved file(.cfg), execute Restore to restore system settings

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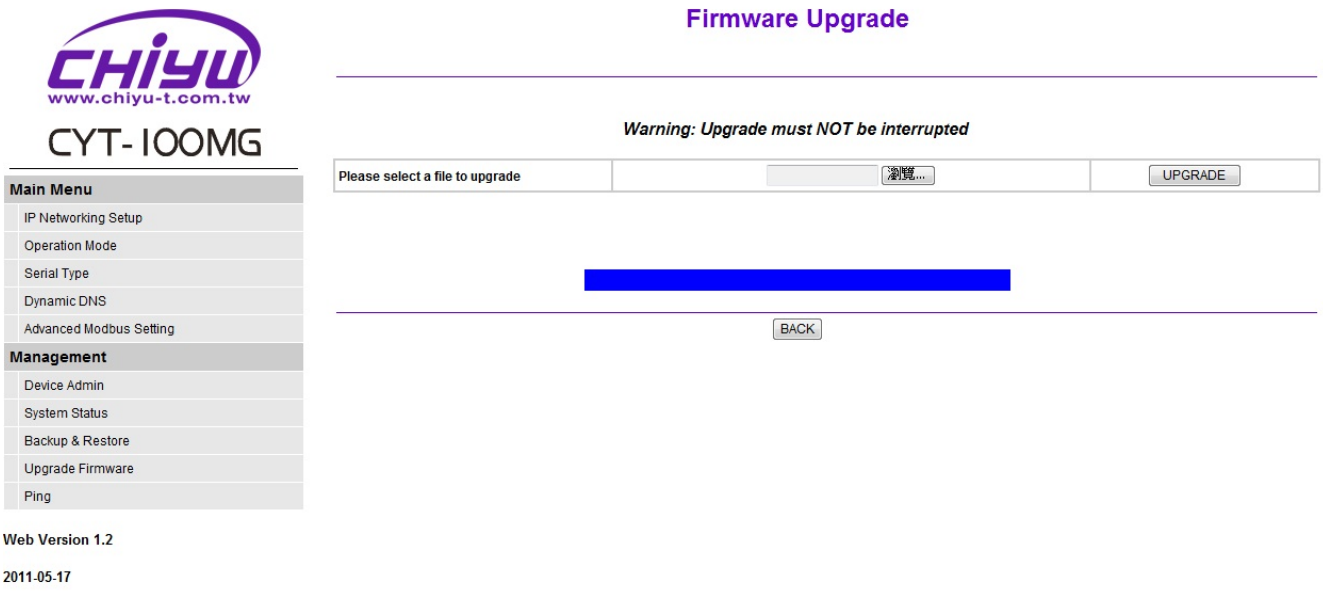
4、Firmware Upgrade



- **Function instruction**

Function	Description
Please select a file to upgrade	● Browse and select firmware, execute Upgrade to upgrade firmware ● Has to assure the possibility of power supply during the process of upgrading, or severe damage will be caused. What if upgrade different firmware to different products, and it will also cause severe damage.

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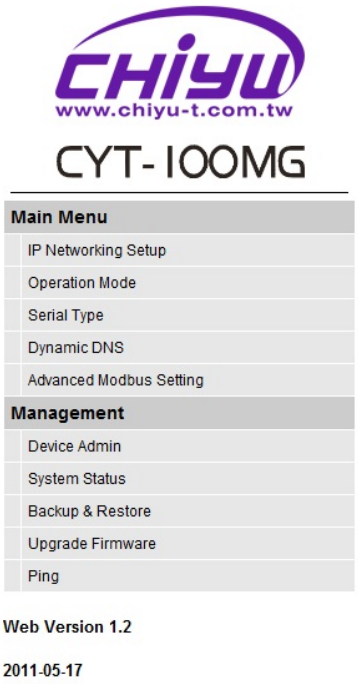
5、PING



- **Function instruction**

Function	Description
Source IP Address	Display CYT-100MG IP address
Destination IP Address	Input IP address of Remote Host
Packet Number	Set up the number of PING package, ranged 1 ~4 , the default 4
Ping Size	Set up the size of PING package, the utmost setting 1460 bytes.
Ping Result :	● Display the **Sent Request** data ● Display the **Receive Reply** data

CYT-100MG